

WHAT IS CLAIMED IS;

1. A recording-medium cartridge which stores a recording-medium and a cartridge memory, wherein

the cartridge memory which holds a unique cryptographic  
5 key in the condition that the rewrite of the cryptographic key is forbidden is detachably attached to the recording-medium cartridge, and wherein

the recording-medium holds a CRC-code, which is generated based on the cryptographic key and data to be recorded on the  
10 recording-medium, in the condition that the CRC-code is correlated with the data.

2. A recording-medium cartridge according to claim 1, wherein

15 the CRC-code and data are recorded on the recording-medium in the condition that the CRC-code and data adjoin with each other.

3. A recording-and-reproducing apparatus which performs a  
20 recording-and-reproducing of data against the recording-medium cartridge of claim 1, the recording-and-reproducing apparatus comprising:

a CRC-code generator, which generates a CRC-code based on a cryptographic key, which is obtained from a cartridge memory  
25 stored in the recording-medium cartridge, and data entered from an external device, when performing a recording of data on the

recording-medium, and

the CRC-code generator generates a reference  
CRC-code based on a cryptographic key, which is obtained from  
the cartridge memory, and data obtained from the

5 recording-medium, when performing a reproducing of data  
recorded on the recording-medium;

a CRC-code recorder which records the CRC-code on the  
recording-medium when performing the recording;

a CRC-code comparator which compare the reference  
10 CRC-code generated by the CRC-code generator with the CRC-code  
obtained from the recording-medium, when performing the  
reproducing; and

a reproducing controller which determines whether or not  
to allow the reproducing of data recorded on the  
15 recording-medium based on the comparison result of the CRC-code  
comparator.

4. A recording-and-reproducing apparatus which performs a  
recording-and-reproducing of data against the  
20 recording-medium cartridge of claim 2, the  
recording-and-reproducing apparatus comprising:

a CRC-code generator, which generates a CRC-code based on  
a cryptographic key, which is obtained from a cartridge memory  
stored in the recording-medium cartridge, and data entered from  
25 an external device, when performing a recording of data on the  
recording-medium, and

the CRC-code generator generates a reference  
CRC-code based on a cryptographic key, which is obtained from  
the cartridge memory, and data obtained from the  
recording-medium, when performing a reproducing of data  
5 recorded on the recording-medium;

a CRC-code recorder which records the CRC-code on the  
recording-medium when performing the recording;

a CRC-code comparator which compare the reference  
CRC-code generated by the CRC-code generator with the CRC-code  
10 obtained from the recording-medium, when performing the  
reproducing; and

a reproducing controller which determines whether or not  
to allow the reproducing of data recorded on the  
recording-medium based on the comparison result of the CRC-code  
15 comparator.

5. A recording-and-reproducing apparatus according to claim  
3, wherein

the recording-and-reproducing apparatus has a unique  
20 identification number, and wherein

the CRC-code generator generates the CRC-code based on the  
cryptographic key, the unique identification number, and data  
entered from an external device, when performing a recording,  
and

25 the CRC-code generator generates the reference CRC-code  
based on the cryptographic key, the unique identification

number, and data obtained from the recording-medium, when performing a reproducing.

6. A recording-and-reproducing apparatus according to claim  
5 4, wherein

the recording-and-reproducing apparatus has a unique identification number, and wherein

the CRC-code generator generates the CRC-code based on the cryptographic key, the unique identification number, and data  
10 entered from an external device, when performing a recording, and

the CRC-code generator generates the reference CRC-code based on the cryptographic key, the unique identification number, and data obtained from the recording-medium, when  
15 performing a reproducing.

7. A recording-medium cartridge according to claim 1, wherein

the recording-medium cartridge is a magnetic tape.  
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8. A recording-medium cartridge according to claim 2, wherein

the recording-medium cartridge is a magnetic tape.

25 9. A recording-medium cartridge according to claim 3, wherein

the recording-medium cartridge is a magnetic tape.

10. A recording-medium cartridge according to claim 4,  
wherein

5 the recording-medium cartridge is a magnetic tape.

11. A recording-medium cartridge according to claim 5,  
wherein

the recording-medium cartridge is a magnetic tape.

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12. A recording-medium cartridge according to claim 6,  
wherein

the recording-medium cartridge is a magnetic tape.

15 13. A recording-medium cartridge according to claim 1,  
wherein

the recording-medium cartridge is a magnetic disk.

14. A recording-medium cartridge according to claim 2,  
20 wherein

the recording-medium cartridge is a magnetic disk.

15. A recording-medium cartridge according to claim 3,  
wherein

25 the recording-medium cartridge is a magnetic disk.

16. A recording-medium cartridge according to claim 5,  
wherein

the recording-medium cartridge is a magnetic disk.

5 17. A recording-medium cartridge according to claim 1,  
wherein

the recording-medium cartridge is an optical recording  
tape.

10 18. A recording-medium cartridge according to claim 3,  
wherein

the recording-medium cartridge is an optical recording  
tape.

15 19. A recording-medium cartridge according to claim 1,  
wherein

the recording-medium cartridge is an optical recording  
disk.

20 20. A recording-medium cartridge according to claim 3,  
wherein

the recording-medium cartridge is an optical recording  
disk.